

# **RF-502**

## **OPERATION INSTRUCTIONS**

THE BEST SECURITY SPEAKS FOR ITSELF

Congratulations on your purchase of the RF-502 vehicle security system.

AutoPage, Inc. is one of the companies with the longest history and experience in vehicle security in the United States and a wholly owned subsidiary of Iwata Electric Co., of Tokyo, Japan. Iwata has been an industry leader for 40 years, establishing a reputation for ingenuity in its engineering capability and innovative communication products. AutoPage and Iwata maintain the long tradition of providing the best value to their customers.

We sincerely hope the purchase of the RF-502 vehicle security system provides peace of mind to you.

Please take the time to read over this operation manual to thoroughly familiarize yourself with the many features and options of the RF-502.

#### !!NOTICE!!

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING
INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
FEDERAL COMMUNICATION COMMISSION RULES AND REGULATIONS
PROHIBIT THE ADJUSTMENT OF THE TRANSMITTER PORTION OF THIS SYSTEM
BY UNLICENSED PERSONNEL.

## **RF-502 OPERATION INSTRUCTIONS**

#### A. REMOTE CONTROL TRANSMITTER OPERATION

The new remote control transmitter (XT-54) included with the RF-502 offers the code rolling feature which will prevent illegal use of a code-grabber with an attempt to record the code of your transmitter.

#### 1. ARM/DISARM

#### TO ARM THE RF-502

Press the ON/OFF button once to arm. The siren will chirp one (1) time, the lights will flash, and all doors will lock. (\*)



## **TO DISARM THE RF-502**

Press the ON/OFF button once to disarm. The siren will chirp two (2) times, the lights will flash, and all doors will unlock.(\*)

**NOTE**(\*): Your vehicle must be equipped with power door locks and optional relays may be required to allow alarm control over the vehicle door locks. Additionally, all doors will lock automatically each time the ignition key is turned on, and unlock automatically each time the ignition key is turned off. Please see Section (I) "IGNITION CONTROL POWER DOOR LOCK SYSTEM".

#### 2. TEMPORARY CHIRP DELETE FROM REMOTE

Upon approaching the vehicle (whether armed or disarmed) push the AUX button on the remote control transmitter for half (0.5) second, then very quickly push the ON/OFF button on the transmitter to arm or disarm in the usual manner. The chirp sound will be silenced only for this

particular operation. The sequence must be repeated each time if it is desired to cancel the arm/disarm chirp sound.

#### 3. PANIC FUNCTION

The RF-502 remote control may be used as a remote panic switch to trigger the siren in cases of emergency. To activate the PANIC FUNCTION press and hold the ON/OFF button on the remote transmitter for a minimum of 3 seconds. The siren will sound. To stop the PANIC FUNCTION press the ON/OFF button on the transmitter.

## 4. **DELETING THE PRE-WARNING SENSOR CIRCUIT** (If installed)

The RF-502 offers the dual stage SIS-5 impact sensor to pre-warn a light impact on the vehicle with a siren chirp before triggering the alarm. The alarm will trigger with the third violation within 15 seconds. The RF-502 also provides a pre-warnng sensor input for an additional sensor like a radar sensor to pre-warn approach to the vehicle.

To delete the pre-warning sensor, press the button again within 5 seconds after arming. The siren will confirm deletion with a low chirp.

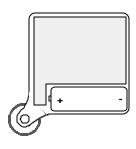
**NOTE**: Deleted sensor(s) will return to normal operation upon disarming the RF-502. Sensor(s) deletion procedure must be followed each time the RF-502 is armed. This operation deletes only the prewarning sensor of the alarm.

**NOTE**: This pre-warning feature is set inactive by the factory, and must be activated at the time of installation if this feature is desired.

## 5. CHANGING THE REMOTE TRANSMITTER BATTERY

The RF-502 remote transmitter uses one (1) 12 volt miniature battery, #EL12, #VR22, or Radio Shack #23-144. It will provide approximately one year of operation before replacement is necessary.

To replace the battery, carefully remove the case screw located at the end of the remote where the key ring attaches to the case. Use a small blade Phillips screwdriver. Before removing the battery note the direction of its terminals. Install the new battery exactly the same, using caution so as not to bend, or otherwise damage the



battery contacts. Replace the case cover and carefully tighten the screw. *Do not over-tighten the screw!* Test the transmitter to insure it arms and disarms the alarm.

## B. LED STATUS INDICATOR OPERATION

- 1. LED OFF= The RF-502 is disarmed.
- 2. LED CONSTANT ON= Indicates open trigger circuit.
- 3. LED FAST FLASHING= Passive arming timer is counting down.
- 4. LED FLASHING= The RF-502 is armed.
- 5. LED FLASHING IN A 2 FLASH/HOLD SEQUENCE= Alarm breach.

**NOTE**: Unless a door is opened after disarming, the RF-502 will automatically rearm in 60 seconds, and the LED will continue to flash. See Section (G) AUTOMATIC RE-ARMING for details.

## C. AUDIBLE AND VISUAL ALARM STATUS INDICATOR

- 1. 1 CHIRP WITH LIGHT FLASH= Alarm is armed.
- 2. 2 CHIRPS WITH LIGHT FLASH= Alarm is disarmed.
- 4 CHIRPS WITH LIGHT FLASH & LED FLASHING IN A 2
   FLASH/HOLD SEQUENCE= Alarm is disarmed and has been breached in your absence.

#### D. VALET/OVERRIDE SWITCH

**NOTE**: Both VALET and OVERRIDE functions are performed from the same switch.

#### 1. OVERRIDE FUNCTION

The OVERRIDE FUNCTION may be used if the RF-502 remote is lost or inoperative. To operate the OVERRIDE FUNCTION, enter the vehicle (siren will sound); switch the vehicle ignition to ON. Move the VALET/OVERRIDE switch to ON; then OFF; the siren will stop. The RF-502 will be disarmed. Quickly replace or service the remote transmitter to insure continued vehicle protection.

#### 2. VALET FUNCTION

The RF-502 may be placed into the VALET (stand-by) mode to allow for vehicle service, car washing, or attendant parking without self arming after the ignition is switched off, and without leaving the RF-502 remote control with unauthorized individuals.

To operate the VALET FUNCTION turn the vehicle ignition to on and move the VALET/OVERRIDE SWITCH to ON.

To return to normal operation turn the vehicle ignition to on and move the VALET/OVERRIDE SWITCH to OFF.

#### 3. KEYLESS ENTRY MODE

In the valet mode, the vehicle doors can be locked and unlocked using the remote. However, there will be no chirp confirmation; it is strongly recommended that the driver visually confirm that the doors are locked.

## E. PASSIVE/MANUAL ARMING OPERATION

(Optional at installation)

Passive/Manual operations can be selectable if an optional toggle switch is installed. Consult your installing dealer.

#### 1. PASSIVE ARMING

If you choose the PASSIVE (automatic) mode, the system must be operated as below.

- Switch OFF vehicle ignition, exit vehicle, and be sure all protected openings are closed.
- 2. The LED STATUS INDICATOR will begin *fast flashing* and the passive arming timer will begin counting down.
- 3. If you re-open the exit the LED will stop flashing.
- 4. Close the exit, and the LED will start flashing again.
- 5. The RF-502 will count down for 30 seconds. After 30 seconds, the siren will chirp 1 time indicating the RF-502 has armed.

**NOTE**: If the optional remote power door locks feature is installed, the doors will automatically lock 10 seconds after the PASSIVE arming cycle is completed. This feature is available only if the ignition control power door lock system is selected.

#### 2. MANUAL ARMING

If you choose the MANUAL (active) arming mode, follow the steps below.

- 1. Switch off ignition, leave vehicle, and close all protected openings.
- 2. Press the ON/OFF button on the remote transmitter.
- The siren will chirp 1 time. 5 seconds later the RF-502 will be fully armed.

## F. PASSIVE/MANUAL DISARMING OPERATION

Approach the vehicle and press the ON/OFF remote transmitter button. The siren will chirp 2 times and the lights will flash to indicate the RF-502 is disarmed.

#### G. AUTOMATIC RE-ARMING

The RF-502 is equipped with an automatic re-arming circuit that will return the alarm to a fully armed state if a door is *not* opened within 60 seconds after disarming. This automatic re-arming circuit can be eliminated at the time of installation.

#### H. BREACH WARNING

The RF-502 is equipped with BREACH WARNING to tell you, upon disarming, if the alarm has been triggered in your absence. Press the ON/OFF button on the remote transmitter. If a breach has occurred, the siren will signal with 4 chirps, the lights will flash four times, and the LED will be flashing in a 2 second flash/hold sequence.

## I. IGNITION CONTROL POWER DOOR LOCK SYSTEM

When installed with remote power door locks, the vehicle's doors will automatically lock when the ignition is switched on. The doors will automatically unlock when the ignition is switched off. In order to avoid any undesirable lock-out, the doors will *not* lock if any door is left open.

This feature is optional at time of installation. If the ignition control door lock system is not chosen, the doors will not lock in passive arming. However, the doors will lock in manual arming and automatic re-arming.

## J. TRIGGER TEST

After arming the RF-502 in either the PASSIVE or MANUAL mode, test the system in the following manner.

- 1. Open any door or other protected opening. The siren will sound instantly, and the lights will flash.
- If the pre-warning feature is activated, the RF-502's SIS-5 impact sensor will respond to a light shock with a chirp sound, and trigger the alarm when a heavier shock is detected. (Please refer to A-4 for details).
- 3. If optional sensors have been installed, arm the RF-502 and test according to the directions of the particular sensor installed.

If triggered in the armed condition, the RF-502 will sound its siren and flash the lights for 60 seconds; then it will stop and automatically reset and rearm. If the violation continues, the alarm will sound and lights will flash for two 60 second cycles.

## K. PROGRAMMING THE REMOTE TRANSMITTERS

**NOTE**: Each time the programming mode is entered, all programmed transmitter codes will be automatically deleted and must be reprogrammed. This is an important security feature. If any transmitter is lost or stolen, enter the programming mode and re-program existing transmitters. Transmitters can only be programmed by entering the programming mode. Existing codes will remain in memory even if power to the RF-502 is disconnected.

To program the RF-502 transmitters, follow the directions as written below, *in their exact order!* 

- 1. Flip the VALET/OVERRIDE switch to "ON" position.
- 2. Turn the ignition switch to "ON", then "OFF", then immediately
- 3. Flip the VALET/OVERRIDE switch "OFF", "ON/OFF", "ON/OFF". The siren will chirp one (1) time.

- 4. Turn the ignition switch "ON/OFF", "ON/OFF". The siren will chirp one (1) time. You are now in the programming mode.
- Press the ON/OFF button on one of the remote transmitters until the alarm siren responds with a confirming chirp. The first transmitter is now programmed.

Within five (5) seconds, press the ON/OFF button on the second transmitter until the alarm siren responds with a confirming chirp. The second transmitter is now programmed. **NOTE**: If the RF-502 does not receive a second code to learn within five (5) seconds, it will automatically close the programming mode and resume normal alarm functions. If this happens, it will be necessary to repeat steps 1 through 6 and re-program all transmitters. If three or four transmitters are programmed, continue pressing the ON/OFF button of the third and/or fourth transmitters.

The RF-502 can learn up to four remote transmitter codes. If later
optional third and forth transmitters are to be programmed, follow
sequence 1 through 6 and re-program all existing transmitters.

## L. PROGRAMMING REMOTE FOR SECOND VEHICLES

The RF-502 transmitters are capable of controlling separately installed RF-502 or RF-302 alarm systems in two or three vehicles.

To code the RF-502 transmitters for two or three vehicles follow the diagrams as shown below. Before multiple vehicle programming can be achieved, it is necessary to enter the programming mode as described in SECTION K.

## 1. TWO VEHICLE OPERATION

VEHICLE #1

Enter the programming mode on vehicle #1 and push the ON/OFF button on the transmitter for Vehicle #1. The alarm siren will respond with a confirming chirp. *Within five (5) seconds*, push the AUX button on the transmitter for Vehicle #2. The alarm siren will respond with a confirming chirp. Both transmitters are now programmed to Vehicle #1.

#### VEHICLE #2

Enter the programming mode on Vehicle #2 and push the AUX button on the first transmitter used for Vehicle #1. The alarm siren will respond with a confirming chirp. Within five (5) seconds, push the ON/OFF button on the second transmitter that had been previously programmed on Vehicle #1. The alarm siren will respond with a confirming chirp. Both transmitters are now programmed to Vehicle #2.

**NOTE**: Here, the first transmitter is assumed to be the primary transmitter of Vehicle #1, and the second transmitter is assumed to be the primary transmitter of Vehicle #2.

	VEHICLE #1	VEHICLE #2
TRANSMITTER #1	ON/OFF BUTTON	AUX BUTTON
TRANSMITTER #2	AUX BUTTON	ON/OFF BUTTON

## **AUTOPAGE ALARM ACCESSORIES**

## AP-4000DX Paging System

Vehicle security paging was originated by AutoPage over 18 years ago. The AP4000DX is our latest version providing a full four watts of output power to signal a handsome belt-clip paging receiver indicating your RF-502 has been triggered, even if you cannot hear the siren.

## **RS-32 Dual Stage Perimeter Protection Sensor**

The RS-32 utilizes microwave technology that emits dual protective fields. The easy and separate adjusment of the exterior and interior fields allows the RF-502 to be armed and provide maximum protection in convertible vehicles parked with the top down, and equally good protection in enclosed vehicles.

#### SIS-3 Glass/Shock Sensor

Our top selling and extremely reliable electronic glass/shock sensor, the SIS-3 can be finely adjusted for each installation, from sports cars to trucks. When properly adjusted, it virtually eliminates false triggers typically caused by inferior sensors.

#### SIS-10 Air Movement Sensor

The SIS-10 super low frequency vibration sensor has successfully integrated an electret electrostatic transducer and low pass filter, creating a new and cost effective air movement sensor. If installed in a closed vehicle, any movement of air inside the vehicle which may be caused by opening a door will trigger the sensor. Applications of the SIS-10 are limitless. It will be ideal to monitor a vehicle's doors, trunk or hatch, an RV, a closed cabin on a vessel and so on. The SIS-10 can also replace glass breakage sensors. The advantage of the SIS-10 is that a single SIS-10 can cover all the doors, rear hatch, windows and sun roof even if there is no pin switch. Like other AutoPage SIS

sensors, the SIS-10 has a LED and potentiometer for easy sensitivity adjustment.

#### MSEN-KIT

The MSEN-KIT includes two pre-wired Micro Resonance Sensors and a special triggering amplifier. These special sensors are designed to be mounted within the vehicle door or on the door post near the latching mechanism that keeps the door closed. When properly adjusted, they will respond to the frequency caused by metal-to-metal contact, such as a lock pick, screwdriver, or professional door opening tools inserted into the door for attempted illegal entry into the vehicle. the MSEN-KIT sensors are designed to provide limited coverage to specific areas. They should be used in conjunction with other AutoPage sensors for maximum protection capabilities.

#### **AC68 Power Window Module**

The AC68 Power Window Control Module will control the up or down motion of two power windows, or one power window and a power sunroof.

## RK-1 Relay Kit

A pre-wired relay and socket for starter interrupt and other functions of the RF-502.

#### ES6

As an option to the standard single tone siren package, a six tone siren is available at additional cost.

#### XT-54 EXTRA REMOTE CONTROL TRANSMITTER

Additional/Replacement remote control transmitter.

#### LIMITED LIFETIME WARRANTY PROVISIONS

(U.S. and Continental U.S. Only)

- 1. AutoPage, Inc. WARRANTS that this new unit has been thoroughly inspected and tested at the factory prior to delivery. Your AutoPage equipment is guaranteed for "life" to the original purchaser/user of the equipment under the following conditions: If the product proves defective (according to AutoPage's testing) within the first year, the defective unit may be exchanged or repaired free of charge. "Proof of Purchase" (dated sales receipt) must accompany all warranty returns; **otherwise**, **your returns will be rejected and sent back.** After one (1) year, the purchaser should ship the unit pre-paid to AutoPage with a money order in the amount of \$20.00 to cover handling and shipping charges. **Note:** The WARRANTY CARD on the back of this page may be required to receive warranty services.
- 2. This WARRANTY will be considered VOID if the equipment has been misused, neglected, improperly serviced, altered, dropped or damaged by water, contrary to the AutoPage INSTRUCTION MANUAL. Or, if used with accessories not approved by AutoPage, which may have contributed to the defect
- 3. The purchaser's remedies under this WARRANTY shall be limited to the repair or replacement of electronic components only. THE FOLLOWING IS NOT COVERED: Damages or deterioration to cases, batteries, covers and cabinets; the cost of repairs, replacement and labor of which shall be borne by the purchaser even if occurring during the WARRANTY period.
- 4. Any equipment or parts which are claimed to be defective under this WARRANTY must be sent to the AutoPage Service center with "proof of purchase" at purchaser's expense prior to such return, a Return Authorization Number should be obtained. AutoPage will return the equipment, charges prepaid. Warranty Service can be provided through the dealer where the equipment is originally purchased.
- 5. Any unexpired WARRANTY shall be applicable to equipment and parts in the possession of the original purchaser only.
- 6. THIS WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

7 AutoPage shall not be liable, under the foregoing WARRANTIES or otherwise, for: Any personal injury of any kind to the purchaser, its employees or agents or anyone else whomsoever resulting directly or indirectly from the use or presence of the equipment or parts; Consequential damages of any kind; Any inability of the purchaser to use the equipment.

This WARRANTY CARD is for your record. However, AutoPage reserves the right to request you to submit this WARRANTY CARD which must have complete information to receive warranty service. Please keep this card in a secured place.

## AUTOPAGE WARRANTY SERVICE CARD

Model RF-502 Serial#	
CUSTOMER TO COMPLETE	DEALER TO COMPLETE
Mr/Mrs/Ms	
Your Name (Please print)	Company Name
Address	 Address
City, State, Zip	City, State, Zip
Year/Make/Model of Vehicle	Dealer's Telephone Number
	Date of Installation\Purchase
"Proof of purchase" which include purchase must accompany all warr	s the store name and date of canted returns.
It is your responsibility to keep this service.	card for any future warranty
For You	r Records

DATE	SERVICE COMPLETED

## AJFORAGE ((I))),

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